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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT
Olympic Coast National Marine Sanctuary
138 W 1st Street
Port Angeles, WA 98362-2600

May 28, 1999

ORIGINAL

Docket Management Facility
USCG-1999-4974-15
U.S. Department of Transportation
Room PL-401
400 Seventh Street SW
Washington D.C. 20590-0001

Dear Sir/Madam:

I am writing to provide comments on [USCG-199-49741 Port
Access Routes Study; Strait of Juan de Fuca and Adjacent/Waters.

I would like to thank the 13th Coast Guard District for inviting the Olympic Coast National Marine Sanctuary (OCNMS or Sanctuary) to participate in the Port Access Routes Study and for providing an opportunity for our constituents to address marine safety within and adjacent to the Sanctuary. Marine safety off the Olympic Coast has been of interest to the National Oceanic and Atmospheric Administration since early in the OCNMS designation process. It also continues to be of interest to the Sanctuary Advisory Council, which has been following the various marine safety initiatives within the Sanctuary, since the group first met in 1996.

The National Marine Sanctuary Program's primary mandate is resource protection; however, sanctuaries are not exclusionary zones. We also have a mandate to facilitate, to the extent compatible with resource protection, multiple uses of National Marine Sanctuaries. To fulfill these mandates it is critical for us to work closely with the Department of Transportation, the U.S. Coast Guard and the marine industry to ensure that safe marine transportation is an activity compatible with the OCNMS's primary mandate of resource protection. Our comments are largely based on our February 27 comments to DOT Docket OST-97-3286, with updated information related to: (1) the Naval Underwater Warfare Center's Mount Octopus Radar Site; (2) the recent vessel routing efforts of the 11th Coast Guard District and the Monterey Bay National Marine Sanctuary; and (3) BC/States Oil Spill Task Force's Offshore Vessel Traffic Management work group.



Question 1: What navigational hazards do vessels operating in the study area face? Please describe.

In the past decade there have been numerous studies and reports addressing this very issue. Some of the findings related to marine safety within and adjacent to the Sanctuary (the entrance to the Strait of Juan de Fuca) include:

Report to the Premier on Oil Transportation and Oil Spills

(Anderson, 1989) - This report identified problems with tanker traffic transiting across areas of high fishing vessel activity and difficulties associated with the convergence of vessels in the vicinity of the entrance to the Strait of Juan de Fuca.

Recommendations included: (1) routing tankers, so that they would approach the Strait from a more westerly position, on a course that passes to the west and south, or between, the west coast fishing banks; (2) extending the routing system seaward, so as to increase separation and to move traffic more to the west.

Collision Risk in the Approaches to the Strait of Juan de Fuca: an Analysis of Circumstances and Traffic Routing (Judson, 1992) -

This University of Victoria Master's Thesis utilized radar data and fisheries enforcement observations to study vessel traffic patterns and fishing vessel densities to determine risk of collision in the approaches to the Strait. The author found that vessel traffic density nearly doubles in the summer with vessel traffic routes passing through the most active fishing areas. An analysis of ten collisions within the study area, from 1980-1989, found that: excessive speed, low visibility and high traffic density were contributing factors. This study recommended changes to the vessel traffic lanes to route shipping away from areas of high fishing concentration.

Waterways Analysis and Management System report for the Strait of Juan de Fuca (USCG, 1995) -

This report notes that the precautionary area surrounding buoy 'J' is considered by VTS Puget Sound to be one of the most difficult traffic management areas within their area of responsibility due to the risk of collision created by vessels crossing the offshore lanes. The report notes that the practices of encouraging coastal traffic to transit outside the lanes and the prohibition of vessels crossing within 10 miles east of buoy 'J' have mitigated this problem.

Scoping Risk Assessment, Protection against Oil Spills in the

Marine Waters of Northwest Washington State (Volpe Transportation Center, 1997) - This study found that the highest likelihood of an accident resulting in a serious spill was in the offshore waters of the Sanctuary and in Puget Sound proper.

In selecting the waters of the OCNMS as an area at highest risk of a serious spill, the experts of the Scoping Risk Assessment attributed the following factors:

- Physical (bad weather, fog, sea clutter on the radar);
- Organization of the traffic separation scheme (Canadian Tanker Exclusion Zone, ATBA, proximity of Duntze Rock to the Traffic Separation Scheme);
- Traffic (fishing vessels and lighted night operations, crossing traffic at 'J' buoy, barges);
- Human and Organizational Error (poor communications, fatigue of master, bridge resource management).

Question 2: Are there strains on the current vessel routing system (increasing traffic density, for example)? If so, please describe.

Strains on the current routing system include: seasonal concentrations of recreational and commercial fishing activity, periods of restricted visibility and crossing traffic in the vicinity of buoy 'J'. The Sanctuary is also concerned with the practice of inshore traffic transiting south of the traffic lanes, in the vicinity of Duntze and Duncan Rocks (see enclosure 2). This practice helps keep the traffic separation scheme (TSS) clear for large commercial vessels and minimizes crossing situations in the vicinity of buoy 'J'. However, it causes vessels to transit close to navigational hazards, in the vicinity of the most environmentally sensitive areas in the Sanctuary. This area is also known for high currents, restricted visibility and seasonal concentrations of small vessels.

Question 3: Are modifications to existing routing measures needed to address hazards and strains and improve traffic management efficiency in the study area? Why or why not? If so, what measures should the study of port-access routes address for potential implementation?

As stated in our February 27 comments to DOT Docket OST-97-3286, the OCNMS advocates a realignment of the Traffic Separation Scheme (enclosure 4) and the extension of radar coverage of the southern portion of the Sanctuary (enclosure 1). We would like to add to our previous recommendations the development of an offshore vessel routing scheme, which would provide recommended routes for shipping to follow. This recommendation is made in consideration of plans by the States/British Columbia Oil Spill Task Force's plans to develop proposals for a West Coast offshore routing

scheme. This initiative hopes to build on the recent efforts of the 11th Coast Guard District and the Monterey Bay National Marine Sanctuary, in addressing vessel routing off the Central California Coast.

Traffic Separation Scheme (TSS) Realignment - When evaluating local hazards of each waterway segment, the Volpe marine transportation working group found that the nature of the bottleneck at 'J' buoy with converging inbound and diverging outbound deep draft ships, crossing coastal traffic, and sporadic concentrations of fishing boats indicated a serious situation. The experts recommended that a thorough reassessment of the traffic management in the offshore area was needed, and that revamping the TSS would address the high-risk ratings for both "conflicting traffic" and "physical environment".

Our primary concern, related to the current traffic routing, is the proximity of the traffic lanes to Duntze and Duncan Rocks (Enclosure 2). The traffic lanes are currently within 1.65 nm of Duntze Rock. Tugs with barges, traveling south of the traffic lanes, come even closer. This is an area of strong tides and is in the immediate vicinity of Tatoosh Island, one of the most sensitive areas within the Sanctuary that includes some of the highest concentrations of seabirds in Washington State. By shifting the TSS north, closer to the center of the Strait of Juan de Fuca, the hazard from both drift and powered grounding should be reduced. The shift in the TSS would also afford tug traffic more sea room, as they travel south of the TSS. However, care should be taken not to shift the lanes too far north into areas of higher fishing vessel density, e.g., Swiftsure Bank.

Our second concern is the potential for collision between fishing and transiting vessels. Enclosure 3 shows fishing vessel density for September 1998 and two known areas of U.S. recreational and charter fishing activity. We believe that any vessel routing recommendations should route traffic through areas of lower fishing density. If inbound and outbound traffic can be routed away from the highest concentrations of fishing vessels, then the threat from collision should be lowered. While the Sanctuary has data that can be used to determine commercial fishing vessel density, this data does not include smaller fishing vessels, e.g., those that are not participating in the Vessel Traffic System. Additional information on the impact of proposed changes should be obtained from local fishers, before a final recommendation is forwarded to the International Maritime Organization.

Finally, we believe that hazards of collision which exist from converging traffic may be mitigated by having only a single approach to the Strait of Juan de Fuca and extending it offshore. Eliminating the southern approach would also have the benefit of

routing traffic further off the coast, and giving non-participating vessels more sea room when entering and exiting the Strait, e.g., tugs avoiding the TSS (enclosure 2). Outbound vessels which plan to proceed to the south would clear the TSS before making their turn to the south, instead of crossing in front of the inbound lanes in the Precautionary Area adjacent to buoy 'J'. This allows the vessel to postpone its turn, in order to avoid passing in front of an inbound vessel.

Enclosure 4 illustrates one possible realignment of the TSS, which addresses the above concerns. While we are still evaluating the pros and cons of this specific arrangement, we believe that such realignment would be an enhancement to both vessel safety and resource protection. Discussions with U.S. and Canadian VTS Operators, marine industry and fishing associations as well as vessel masters should be conducted to better assess the costs and benefits of this and other alternatives. This measure may very well offer the greatest benefit (reduced risk of powered groundings and collisions) per cost (modest increases in some transits). The OCNMS Vessel Traffic Monitoring System could be utilized to identify the numbers, classifications and names of vessels using each approach to the Strait of Juan de Fuca. Enclosure 6 demonstrates how this system can be used to address specific traffic management questions, e.g., how many additional vessels will transit in the TSS adjacent to Swiftsure Bank if the southern lanes are closed. This information could be used to evaluate proposed changes to offshore vessel routing. The OCNMS is interested in lending its assistance, if this measure is to be further evaluated.

Extend Radar Coverage - In our February 27, 1998 comments we made note of the valuable contribution of the Cooperative Vessel Traffic System (CVTS) managed by the U.S. and Canadian Coast Guard for preventing catastrophic discharges of oil within the OCNMS. We suggested that the Department of Transportation evaluate the value of extending radar coverage through the southern part of the Sanctuary. We commented that this would provide for better traffic management within OCNMS and allow for improved vessel traffic monitoring, and that this enhancement could utilize existing infrastructure and would not necessarily require additional personnel.

Since that time, we have learned of a new radar facility at the very location we initially recommended, Mount Octopus. The Naval Underwater Warfare Center has established a radar site to monitor shipping within the Quinault test range. The Navy has tentatively agreed to make the feed available from this site for the purposes of vessel traffic monitoring. We strongly encourage the Coast Guard to pursue the feasibility of making this data feed available to the Tofino MCTS operators. Not only would this extend the range of existing radar coverage to include all of the

Sanctuary (Enclosure 1), it would also serve a valuable backup to the CVTS, if the Mount Ozzard Radar site were to fail.

Offshore Routing - Numerous studies and experts have pointed out the value in routing traffic further offshore of environmentally sensitive resources. This allows more time for a disabled vessel to make repairs, for tugs of opportunity to respond to disabled vessels and allows more time for resources to be deployed in the case of an oil spill. This was the main rationale for the International Maritime Organization's Area to be Avoided (ATBA) designation to protect the Sanctuary. When the Coast Guard entertained the merit of extending the applicability of the ATBA to other classes of shipping, the marine industry expressed concern over the potential of increasing meeting situations along the seaward boundary of the ATBA. This does not currently appear to be a problem for the number of vessels for which the ATBA currently applies; however, if the ATBA applied to all large commercial vessels the assertion seems to be a valid concern. An alternative approach would be to establish offshore IMO-approved recommended routes. Such an approach is currently being proposed for the waters of the Monterey Bay National Marine Sanctuary (MBNMS).

The MBNMS Vessel Management Report did not recommend an ATBA because it did not provide the necessary active management of traffic for numerous large commercial vessels, via development of north and south routes. As an alternative the report recommended a series of recommended routes/distances from shore for four classes of shipping; Tankers - 50 nautical miles (nm), Hazmat - 25 nm, Barges - 25 nm, and Large Commercial Vessels - 12.7 to 15 nm (north) and 16 to 20 nm (south).

The States/British Columbia Oil Spill Task Force is planning to investigate a similar approach toward the entire West Coast. As recommendations for offshore routing are discussed, the boundaries and applicability of the ATBA should be reviewed to ensure that they are compatible with changes to vessel routing in the Sanctuary. While we are not currently proposing a change to the ATBA, we have included one possible change to the ATBA boundary and an illustrative recommended route, compatible with our proposed TSS realignment (Enclosure 5). While we have only illustrated one possible set of recommended routes for vessels transiting the Sanctuary, we advocate the development of additional offshore routes as appropriate. The Sanctuary supports the States/British Columbia Oil Spill Task Force's initiative and will contribute to the process as it pertains to vessel traffic routing through the Sanctuary.

Question 4: What costs and benefits are associated with the potential measures for study discussed in this document? What measures do you think are the most cost-effective?

We feel that only modest costs are associated with each of the measures we have proposed when compared with the benefits of the associated risk reduction.

TSS realignments - The proposed TSS realignment will increase traffic density in some areas while reducing it in others. It is possible that in attempting to route traffic away from navigational hazards and away from areas of high fishing vessel density, we may increase traffic in areas frequented by smaller vessels. The Washington Department of Fish and Wildlife (WDFW) has expressed a concern over increased traffic in the vicinity of Swiftsure Bank; an area frequented by recreational halibut fishers (enclosures 4 & 5). To address this concern OCNMS did an analysis (enclosure 6), which estimates this increased traffic in the vicinity of Swiftsure Bank and will further consult with WDFW over their concerns.

There will also be administrative costs associated with a realignment of the Traffic Separation Scheme, including government costs associated with the development and presentation of the proposal to the IMO and associated meeting with stakeholders. There may also be minor costs associated with extending the transit time of some vessels. There will also be costs associated with implementation, e.g., the requirement for the production of new charts and educating mariners. We consider these costs to be negligible compared with the resulting reduction of risks of collisions within and adjacent to the Sanctuary.

Radar coverage - The associated costs would be related to the additional maintenance and operational expenses. There would also be some expense in getting the radar feed from Keyport, Washington to Ucluelet, British Columbia. The benefit would be to increase the radar coverage of the Washington Coast and the associated benefits of being able to monitor vessel traffic activity within the OCNMS. This infrastructure would facilitate the monitoring of any future offshore routing scheme. It would also have the added benefit of providing a low-cost backup system for Tofino's main radar system. While some cost would be involved, there is also the benefit of more fully utilizing an U.S. Government resource for multiple purposes. We encourage the Coast Guard to fully explore this unique opportunity.

Offshore routing - The costs and benefits involved are similar to those listed under the TSS realignment.

Question 5: What impacts, both positive and negative, would changes to existing routing measures or new routing measures have on the study area?

The combination of these three proposals will result in a more orderly flow of traffic, will route large commercial traffic further offshore and away from the largest concentrations of commercial fishing vessels, and allow more sea room for coastal traffic. We feel that this will result in a significant improvement to vessel routing within the Olympic Coast National Marine Sanctuary.

In closing, the OCNMS appreciates the support of the U.S. Coast Guard in making this special area as safe as possible, for both the environment and marine shipping. We cannot possibly fulfill our mandate to protect this pristine marine environment without your guidance, expertise and support. Please do not hesitate to contact me, at (360) 457-6622, for any additional information.

Sincerely,



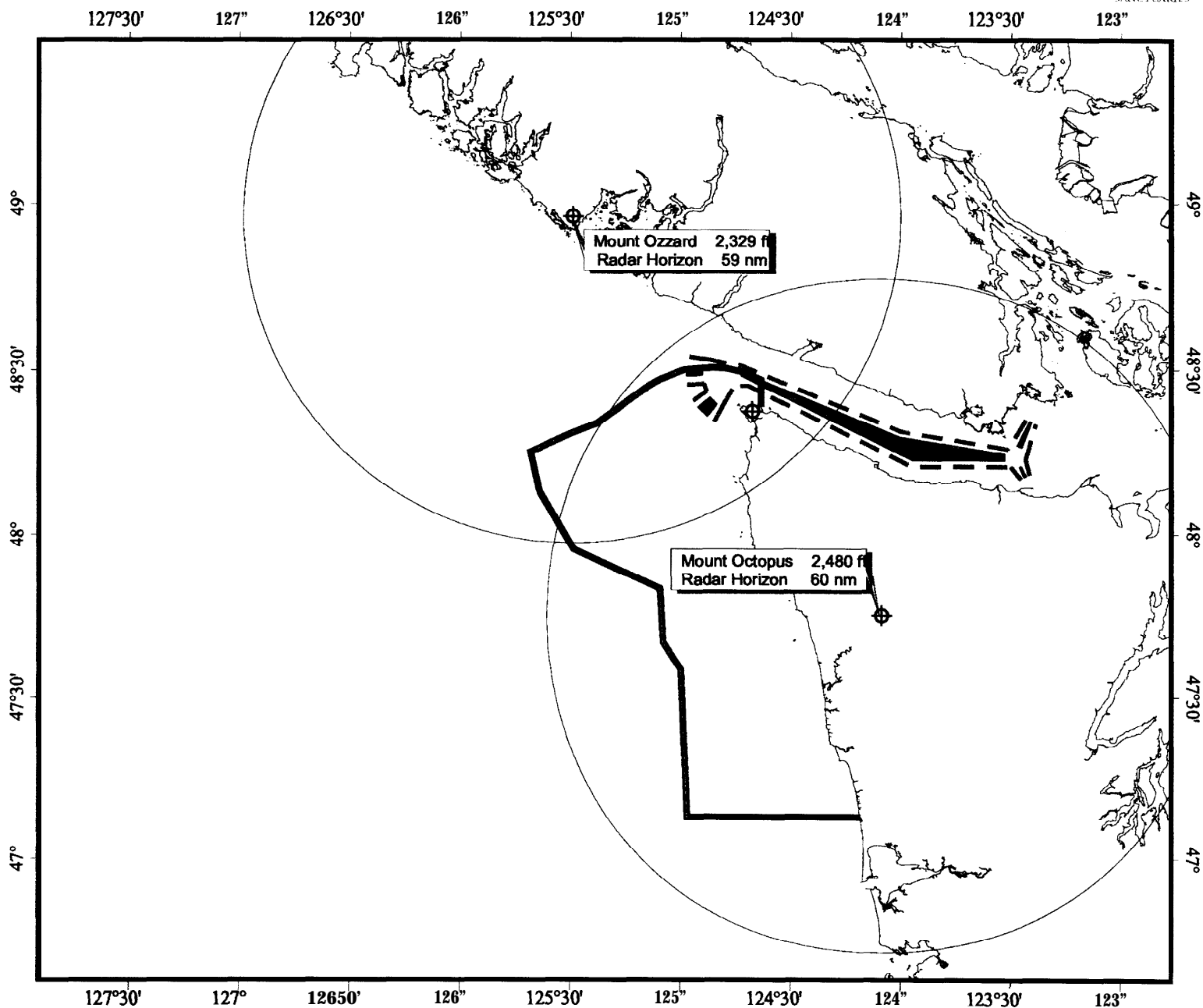
Carol Bernthal, Superintendent
Olympic Coast National Marine Sanctuary

Enclosures

1. Radar Coverage Plot
2. Excerpt from Chart 18480 - Duntze Rock Sample
3. Commercial Fishing Vessel Density for September 1998
4. Sample TSS Realignment Plots
5. Sample Offshore Recommended Route
6. Vessel Traffic Analysis - 4th Quarter 1998

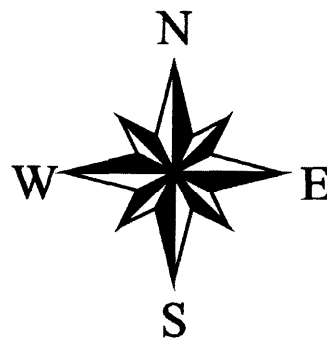


OCNMS Radar Coverage



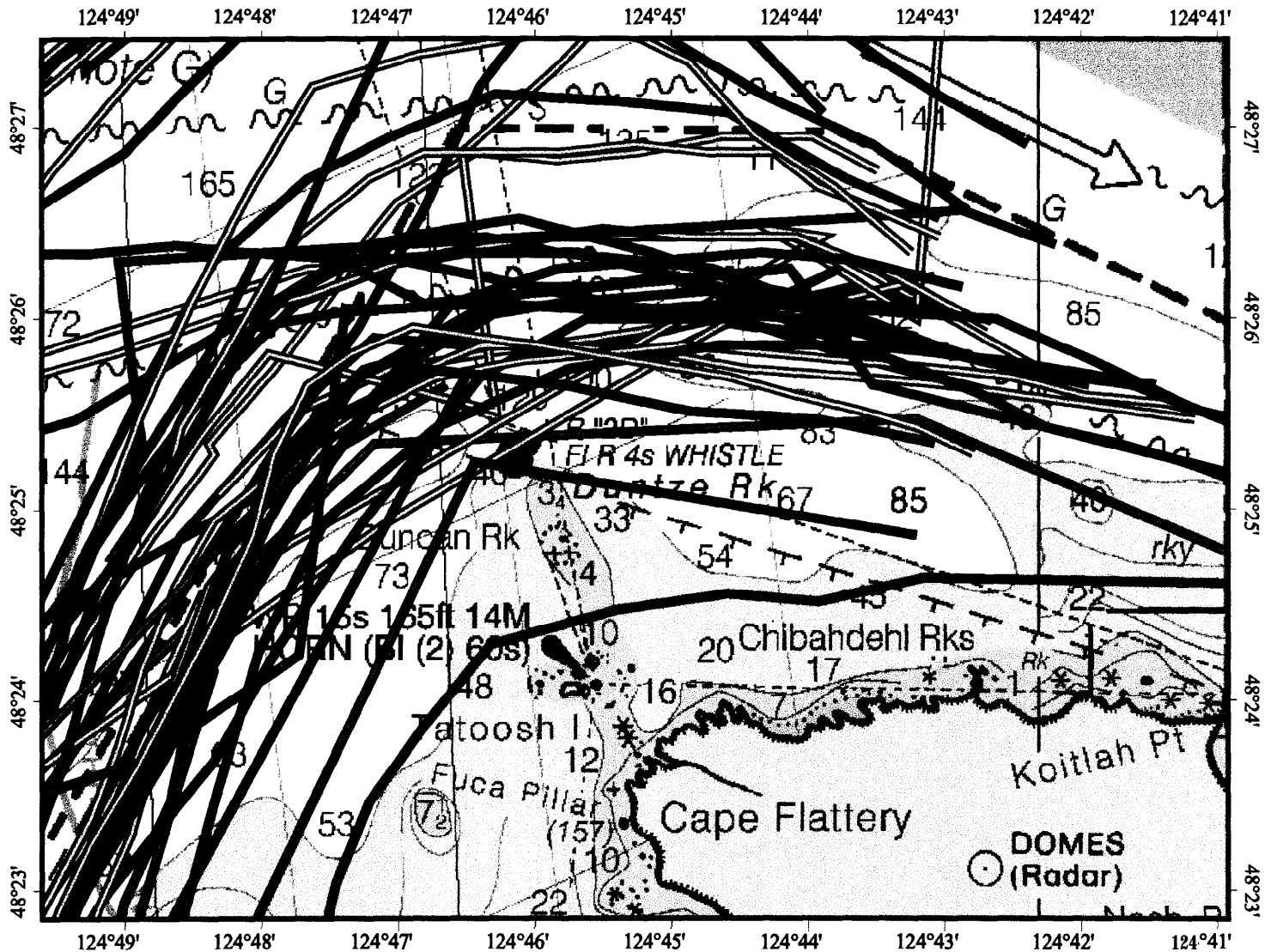
This plot illustrates the radar coverage currently provided by the Canadian Coast Guard Radar Site, located on Mount Ozzard on Vancouver Island.

The plot also illustrates the approximate radar coverage provided by the Naval Underwater Warfare Center Mount Octopus Site.



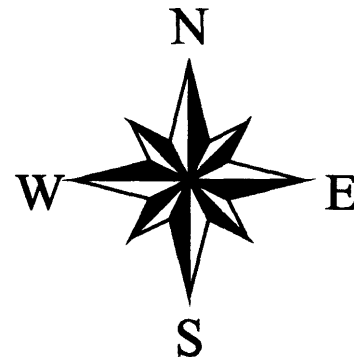


Duntze Rock with Tugs/Barges Tracklines - September 1998



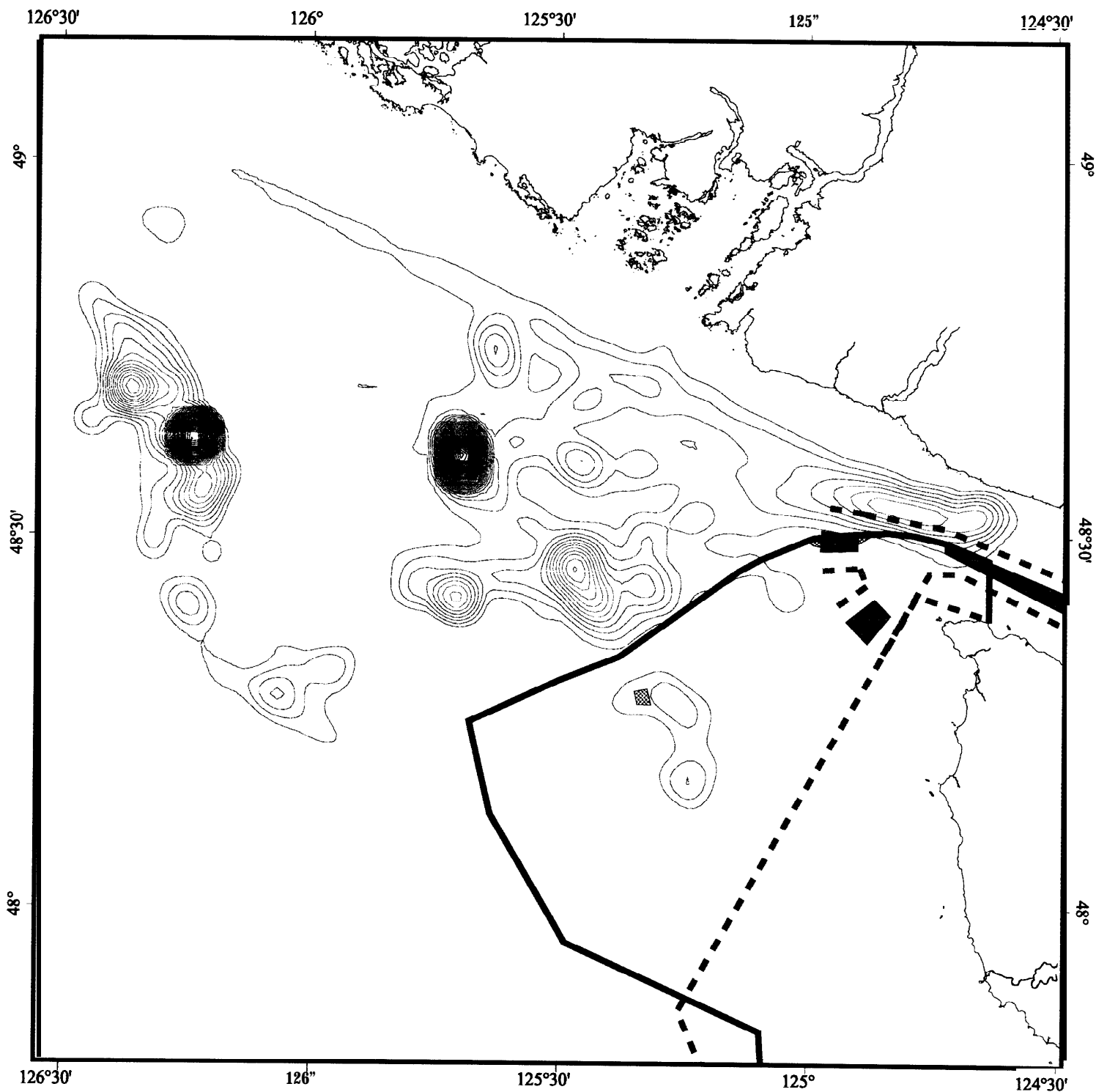
September 98 Tug track lines

- Tug Chemical Barge
- Tug Light
- Tug Log Barge
- Tug Misc Barge
- Tug Oil/Gas Barge

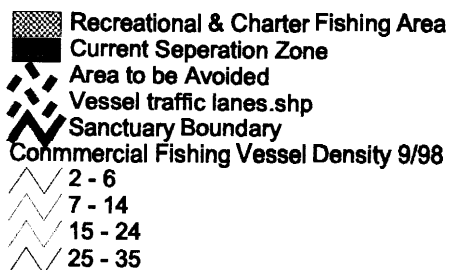


This excerpt of NOAA Chart 18480 shows the proximity of the Vessel Traffic Lanes to Duntze Rock. Tugs/Barges Tracklines from the month of September 1998 are overlaid for illustrative purposes.

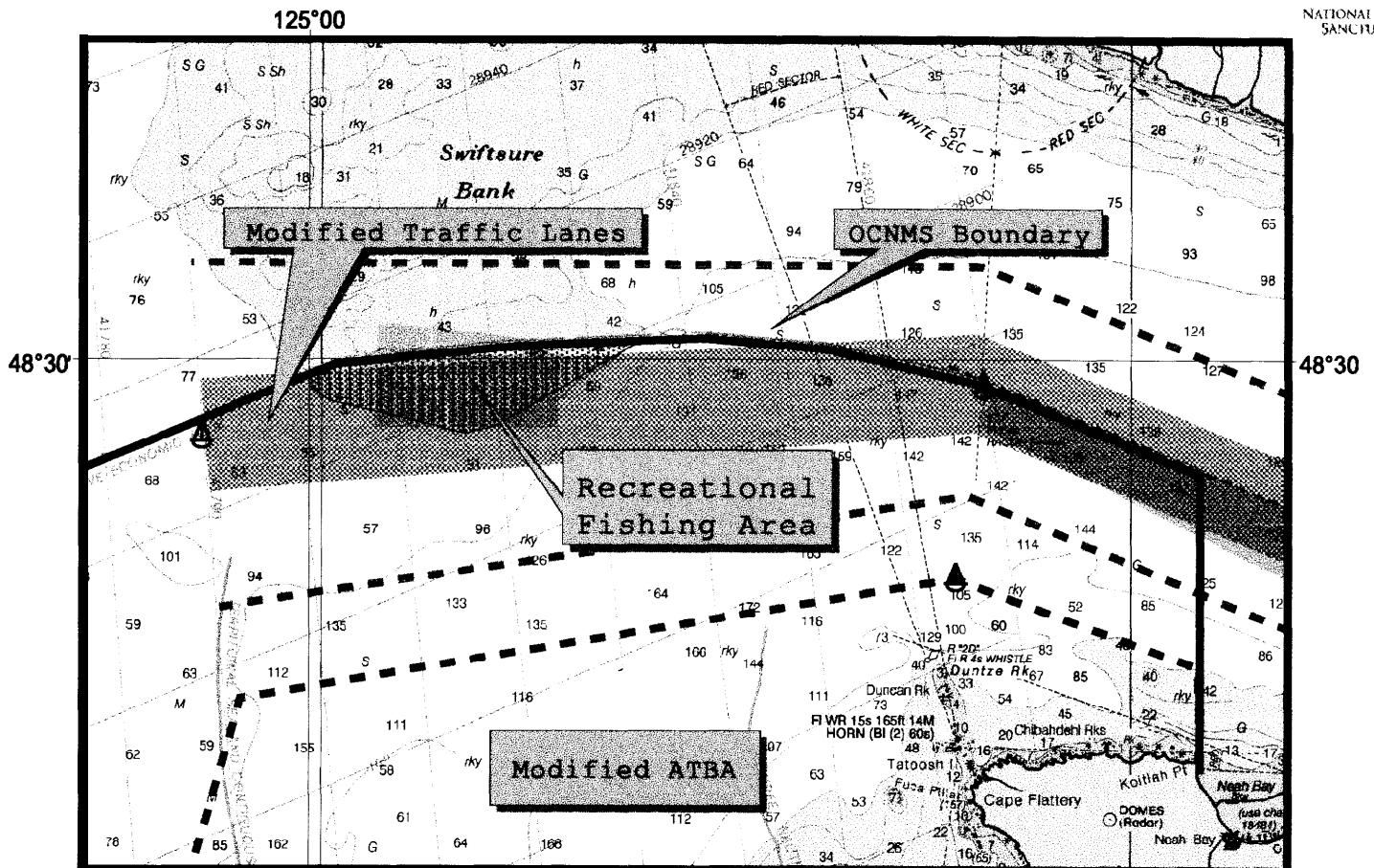
Commercial Fishing Vessel Density September 1998



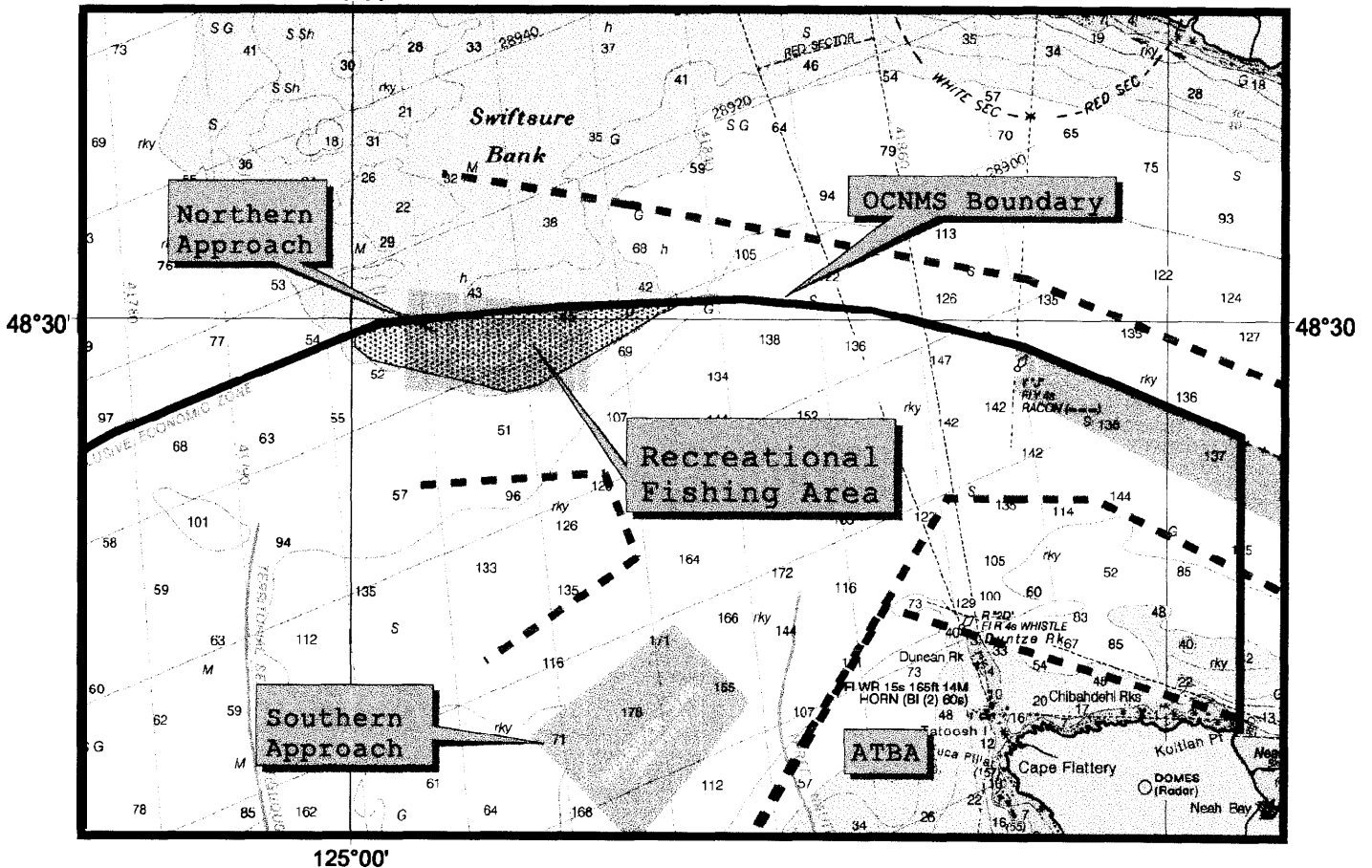
Commercial Fishing Density Contours were calculated from Tofino MCTS radar data. Only vessels participating in the CVTS are included. While smaller non-participating vessels are not included, two known areas of U.S. recreational and charter boat activity, Swiftsure and "blue dot", are illustrated.



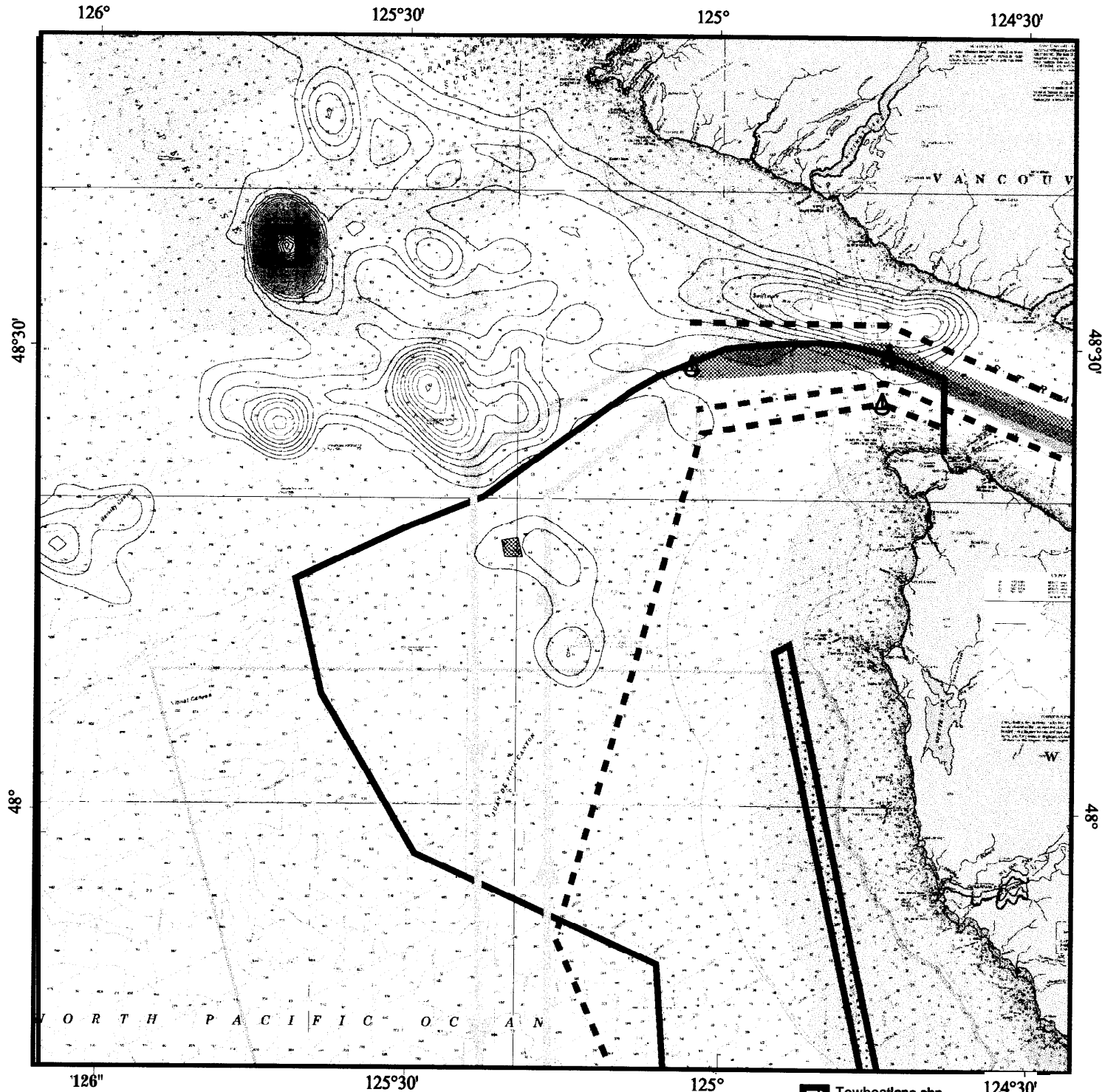
Proposed TSS/ATBA Realignment



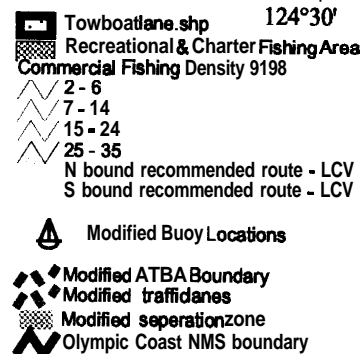
Current TSS/ATBA Alignment



Sample TSS/ATBA Modification and Recommended Routes



This plot illustrates one possible set of recommended routes for vessels inbound from or outbound to the south. Additional recommendations for northern and western routes should be analyzed, as well as routes for various classes of shipping, e.g., separate routes for large commercial vessels, hazmat vessels and tankers could be developed.



Vessel Traffic Analysis

4th Quarter 1998



126°

125°

48°3'

Inbound TSS Traffic

ANCOUVER ISLAND

Not For Navigational Use

- Outbound n lanes.ship
- Inbound n lanes.ship
- Outbound s lanes.ship
- Inbound s lanes.ship
- Self-outbound.ship
- Self-inbound.ship
- Vessel Separation Zones
- Vessel Traffic Lanes
- SB, 40', 60' inbound, n lanes.ship
- SB, 40', 60' inbound, s lanes.ship

126°

125°

48°3'

Outbound TSS Traffic

ANCOUVER ISLAND

Not For Navigational Use

- Inbound n lanes.ship
- Outbound n lanes.ship
- Inbound s lanes.ship
- Outbound s lanes.ship
- Self-outbound.ship
- Self-inbound.ship
- Vessel Separation Zones
- Vessel Traffic Lanes
- SB, 40', 60' outbound, n lanes.ship
- SB, 40', 60' outbound, s lanes.ship

126°

125°

Vessel Type	VTS Total ¹	JDF TSS Total ²	Outbound JDF ³	Outbound North Lanes	Outbound South Lanes	Inbound JDF ³	Inbound North Lanes	Inbound South Lanes ⁴
Bulk Carrier	801	742	357	176	157	385	212	166
Chemical Tanker	77	71	30	19	9	41	18	23
Coastal	18	2				2	2	
Commercial F/V	235	52	14	4	4	38	30	
Container	535	504	245	106	111	259	144	115
Factory F/V	75	62	20	14	2	42	41	1
General Cargo	147	140	63	20	39	77	36	38
Government	60	13	5	2	3	8	5	2
Hydro/Hover Etc	1	0						
LPG/LNG Tanker	13	12	6	3	2	6	3	4
O/B/O	3	3	2		2	1	1	
Ocean Going Tanker	206	190	92	52	38	98	68	29
Others	154	20	11	6	4	9	5	3
Passenger	12	8	6	1	5	2		2
Private Yacht	14	2	1	1		1	1	
RO-RO	110	103	49	7	15	54	39	12
Reefer	30	29	14	2	12	15	9	6
Scientific/Research	12	6	2	1	1	4	2	2
Tug Chemical Barge	25	11	6		6	5		5
Tug Chip Barge	31	0						
Tug Light	36	5	3	1	2	2	1	1
Tug Log Barge	73	0						
Tug Misc Barge	88	15	8		6	7	1	6
Tug Oil/Gas Barge	120	47	29		28	18		17
Veg Oil/Molasses Tanker	7	7	3	1	1	4	1	3
Vehicle Carrier	85	79	41	8	29	38	30	8
Warship	102	55	27	10	14	28	18	10
Total	3070	2178	1034	434	490	1144	667	453

¹ VTS Total identifies all vessels under Tofino Radar Coverage and participating in the Cooperative Vessel Traffic System.

² JDF Total is a subset of VTS Total that identifies vessels using the Traffic Separation Scheme east of Buoy J.

³ Columns Outbound and Inbound JDF are subsets of JDF Total breaking out vessel totals according to their direction of travel.

⁴ Outbound and Inbound South Lanes are those vessels (in bold) which would be affected by the closing of the South TSS Lanes